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# **FACT SHEET**

# General Permit for Construction Material Manufacturing Operations

**KPDES No.:** KYG110000

**AI No.:** 35050

**Date:** January 30, 2015

#### **Public Notice Information**

Public Notice Start Date: April 1, 2014

Comment Due Date: May 2, 2014

Information concerning the public notice process may be obtained on the Division of Water's Public Notice

Webpage at the following address:

http://dep.gateway.ky.gov/eSearch/Search\_Pending\_Approvals.aspx?Program=Wastewater&NumDaysDoc=30

Comments may be filed electronically at the following e-mail address: <a href="mailto:DOWPublicNotice@ky.gov">DOWPublicNotice@ky.gov</a>



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# **SECTION 1**

# **FACILITIES COVERED**

#### 1. FACILITIES COVERED

Those facilities covered include establishments engaged in the manufacture and delivery of concrete products (Pre-Cast Plants – Standard Industrial Classification (SIC) Code 3272), asphalt paving mixtures (Hot Mix Plants – SIC Code 2951) or Portland cement concrete in a plastic and unhardened state (Ready-Mixed Plants- SIC Code 3273). The Pre-Cast Plants are primarily engaged in the manufacturing of concrete products except block and brick including, but not limited to, 1) concrete building materials, 2) concrete columns, 3) concrete pipes, and 4) concrete tanks. Included within the Hot Mix Plant category are those establishments that are not petroleum refineries but manufacture: 1) asphalt and asphalt mixtures for paving, 2) asphalt paving blocks, 3) asphaltic concrete, 4) coal tar paving materials, 5) composition blocks for paving, 6) bituminous concrete, 7) bituminous road materials, and 8) tar and asphalt paving mixtures. The Ready-Mixed Plant category includes: 1) central-mixed, 2) ready-mixed, 3) shrink mixed, and 4) trucked mixed concrete.

#### 1.1. Eligibility

All permanent and portable Pre-Cast Plants, Hot Mix Plants and Ready-Mixed Plants are eligible for coverage under this general permit (KYG11) except those excluded under Section 1.2.

#### 1.2. Exclusions

The following are excluded from coverage under this general permit:

- 1) Hot Mix or Ready-Mixed Plants that are co-located within the permit boundary of a mineral mining operation and are operated by the mineral mining operator. Such plants are subject to the requirements of KYG84 Mineral Mining and Processing Activities;
- 2) Oil Hot Mix or Ready-Mixed Plants that are co-located at a construction site and produce construction materials solely for the construction activity. Such plants are subject to the requirements of KYR10 Construction Stormwater;
- 3) Permanently located Pre-Cast, Hot Mix or Ready-Mixed Plants that discharge to or propose to discharge to a receiving water body that has been categorized as an "Impaired Water" for a pollutant or pollutants of concern that may be associated with Hot Mix or Ready-Mixed Plants and for which an approved Total Maximum Daily Load (TMDL) has been developed;
- 4) Permanently located Pre-Cast, Hot Mix or Ready-Mixed Plants that discharge to or propose to discharge to a receiving water body that has been designated as Coldwater Aquatic Habitat (CAH);
- 5) Permanently located Pre-Cast, Hot Mix or Ready-Mixed Plants that discharge to or propose to discharge to a receiving water body that has been designated as an Outstanding State Resource Water (OSRW); and
- 6) Permanently located Pre-Cast, Hot Mix or Ready-Mixed Plants that the Division of Water (DOW) has determined would be more appropriately addressed by an individual permit or an alternate general permit.

#### 1.3. Location

Within the 120 counties of the Commonwealth of Kentucky

#### 1.4. Treatment Provided

The treatment provided is specific to the facility and is dependent upon the volume of discharge and sources of potential contamination.

#### 1.5. Permitting Action

This is a first issuance of a general KPDES permit to address permanent and portable Pre-Cast Plants, Hot Mix Plants, Ready-Mixed Plants and associated activities conducted in the Commonwealth of Kentucky.

# **SECTION 2**

### **RECEIVING /INTAKE WATERS**

#### 2. RECEIVING / INTAKE WATERS

#### 2.1. Receiving Waters

Those water bodies of the Commonwealth that comprise the Mississippi and Ohio River basins and sub-basins within the political and geographic boundaries of Kentucky.

#### 2.2. Stream Segment Use Classifications

This includes all water bodies that have been designated by DOW singularly or in combination as: Warmwater Aquatic Habitat, Primary Contact Recreation, Secondary Contact Recreation, and/or Domestic Water Supply.

#### 2.3. Stream Segment Antidegradation Categorization

Included are those water bodies which have been categorized as High Quality Waters and Impaired Waters.

#### 2.4. Stream Low Flow Condition

The 7-day, 10-year low flow conditions of the receiving streams can range from zero (0) cubic feet per second (cfs) to 111,000 cfs for the Mississippi River.

# **SECTION 3**

# LIMITATIONS AND MONITORING REQUIREMENTS

#### 3. LIMITATIONS AND MONITORING REQUIREMENTS

This is the first issuance of a general permit in Kentucky that establishes requirements applicable to the wastewaters associated with Pre-Cast, Hot Mix and Ready-Mixed Plants. The types of wastewaters from these facilities can include process and non-process wastewaters.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. Process wastewaters also include: 1) air pollution control wastewaters except those sprayed for dust suppression, 2) vehicle and equipment wash waters, 3) stormwater that accumulates in petroleum products secondary containment structures and 4) any other water which becomes commingled with such wastewaters in a pit, pond, lagoon or other facility used for treatment of such wastewater.

Non-process wastewaters include stormwater runoff from material stockpile areas or non-process areas and waters sprayed for dust suppression. Based on the definition of process wastewaters, runoff from material stockpiles would be considered a process wastewaters, however the development document for Hot Mix Plants published by EPA ("Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standard for the Paving and Roofing Material (Tars and Asphalt) Point Source Category") did not address runoff from stockpiles at Hot Mix Plants. The document only discussed wastewater from air emission control systems (wet scrubbers) as having the potential to discharge. Therefore, it was the determination of the DOW to not include these wastewaters as process waters.

#### 3.1. Non-Process Wastewaters

The discharge of waters sprayed for dust suppression and stormwater runoff shall comply with the requirements in Table 1.

Table 1.												
	Units	Reported Discharge Levels				Effluent Limitations						
Effluent Characteristic		Minimum	Monthly	Daily Maximum	Minimum	Monthly	Daily	Maximum				
			Average	Maximum	Maximum	William	Average	Maximum	Maximum			
Flow	MGD	N/A	Varies	Varies	N/A	N/A	Report	Report	N/A			
Total Suspended Solids	mg/l	N/A	Varies	Varies	N/A	N/A	Report	Report	N/A			
pH	Standard Units	Varies	N/A	N/A	Varies	6.0	N/A	N/A	9.0			
Oil & Grease	mg/l	N/A	Varies	Varies	N/A	N/A	10	15	N/A			

The abbreviation N/A in the preceding tables means Not Applicable.

The abbreviation NR in the preceding table means Not Reported.

#### 3.2. Process Wastewaters

Process wastewaters from Pre-Cast plants shall meet the requirements of Table 1.

There shall be no discharge of process wastewaters from Hot Mix Plants.

There shall be no discharge of process wastewaters from Ready-Mixed Plants except when the permittee operates a wastewater recycle system which recycles process wastewaters to the maximum extent practicable. Such discharges are subject to the requirements of Table 1.

#### 3.3. Standard Effluent Requirements

The discharges to waters of the Commonwealth shall not produce floating solids, visible foam or a visible sheen on the surface of the receiving waters.

#### 3.4. Asphalt Additives and Concrete Admixtures

There shall be no detectable quantities of any asphalt additive or concrete admixture in any discharge from the permitted facility. The preventive measures taken by the permit to insure that no such discharge occurs shall be documented in the Best Management Practices (BMP) Plan for the facility.

# **SECTION 4**

# JUSTIFICATION OF EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

# 4. JUSTIFICATION OF EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

#### 4.1. General

Pursuant to 401 KAR 5:070, Section 3 [40 CFR 122.48 (b)] all permits shall specify required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity.

Pursuant to 401 KAR 5:065, Section 2(4) [40 CFR 122.44(a)] all permits shall contain technology-based effluent limitations.

Pursuant to 401 KAR 5:065, Section 2(4) [40 CFR 122.44(d)] permits shall contain water quality-based effluent limitations when necessary to achieve water quality standards. In determining if such effluent limitations are necessary, DOW must determine if a discharge has reasonable potential to cause or contribute to an instream excursion above a narrative or numeric state water quality standard. DOW's reasonable potential analysis procedures are detailed in the DOW document entitled "General Procedures for Limitations and Requirements Development". The procedures outlined in this document are consistent with the requirements of 401 KAR 5:065, Section 2(4) [40 CFR 122.44(d)(1)(ii)] which requires DOW to account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing, and where appropriate the dilution of the effluent in the receiving water.

Pursuant to 401 KAR 5:065, Section 2(4) [40 CFR 122.44(k)(3) & (4)] permits shall contain BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible or when necessary to achieve effluent limitations or carry out the purpose and intent of the Clean Water Act (CWA).

#### 4.2. Stockpile Runoff

The application of these requirements is to cover precipitation induced wastewaters. Currently, the Effluent Limitation Guidelines (ELG) for Hot Mix asphalt plants in 40 CFR 443 do not address non-process wastewaters.

#### **4.2.1.** Flow

The monitoring requirements for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(4) [40 CFR 122.44(i)(1)(ii)].

#### 4.2.2. pH

The proposed limitations for pH are consistent with requirements of 401 KAR 5:065, Section 2(9) [40 CFR 436] and the state water quality standards as established in 401 KAR 10:031, Section 4.

#### 4.2.3. Total Suspended Solids

The limitations for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(4) [40 CFR 122.44(i)(1)].

#### 4.2.4. Oil & Grease

The limitation for this parameter are consistent with the requirements of 40 CFR 125.3(c)(2) as incorporated by 401 KAR 5:080, Section 2(3) and represents the DOWs BPJ determination of BAT and BPT requirements.

#### 4.3. Process Wastewaters

#### 4.3.1. Discharge of Process Wastewaters from Pre-Cast Plants

Pre-Cast Concrete plants currently do not have a promulgated ELG for process wastewaters. The draft ELG for the concrete products industry published by EPA contained recommendations for BAT, BPT and NSPS requirements for the discharge of process wastewaters from pre-cast concrete plants. In the draft

ELG, EPA lists the best practicable control technologies and best available control technologies as: (1) settling in ponds, basins, tanks or mechanical clarification equipment, (2) pH adjustment, and (3) oil and grease removal, with the only difference between BAT and BPT technologies being the BAT had improved versions of settling ponds. DOW used the draft ELG recommendations to develop the DOW's BPJ determination of the BAT and BPT requirements for process wastewaters. The requirements set in Table 1 are consistent with the control technologies described in the draft ELG. This requirement is consistent with the requirements of 40 CFR 125.3(c)(2) as incorporated by 401 KAR 5:080, Section 2(3).

#### 4.3.2. No Discharge of Process Wastewaters from Hot Mix Plants

The application of the no discharge requirement for process wastewaters from Hot Mix Plants is consistent with the requirements of the ELG for "Existing Sources and Standards of Performance and Pretreatment Standards for New Sources for the Paving and Roofing Materials (Tars and Asphalt) Point Source Category" under 40 CFR 443 as incorporated by 401 KAR 5:065, Section 2(9).

#### 4.3.3. No Discharge of Process Wastewaters from Ready Mix Plants

Ready-Mix Concrete plants currently do not have a promulgated ELG for process wastewaters. EPA published a draft ELG for the concrete products industry however ("Development Document for Effluent Limitations Guidelines and Standards of Performance The Concrete Products Industry") in which EPA made recommendation for Best Available Technology Economically Achievable (BAT) requirements, Best Practicable Control Technology (BPT) requirements and New Source Performance Standards (NSPS) requirements. The recommended BAT and NSPS requirements are no discharge of process wastewater pollutants with the best available control technologies being lists as: (1) Settling in ponds, basins, tanks or mechanical clarification equipment, (2) recycle for use as truck washout, (3) recycle for partial use as mix water, and (4) total containment. DOW used these recommendations to develop the DOW's Best Professional Judgment (BPJ) determination of the BAT and Best Practicable Control Technology Currently Available (BPT) requirements for process wastewaters from Concrete Ready-Mix plants of no discharge of process wastewaters except when the permittee operates a wastewater recycle system which recycles process wastewaters to the maximum extent practicable. This requirement is consistent with the requirements of 40 CFR 125.3(c)(2) as incorporated by 401 KAR 5:080, Section 2(3).

# **SECTION 5**

# SCHEDULE OF COMPLIANCE AND OTHER CONDITIONS

#### 5. SCHEDULE OF COMPLIANCE AND OTHER CONDITIONS

#### **5.1.** Schedule of Compliance

The permittee shall attain compliance with all requirements of this permit on the effective date of this permit unless otherwise stated.

#### 5.2. Antidegradation

The conditions of 401 KAR 10:029, Section 1 have been satisfied. This permitting action is a first issuance of a KPDES general permit for stormwater discharges from industrial activities not addressed by an individual KPDES permit, or alternate KPDES general permit.

For those discharges subject to the provisions of 401 KAR 10:030, Section 1(3)(b)5, the permittee shall install, operate, and maintain wastewater treatment facilities consistent with those identified in the Socioeconomic Demonstration and Alternatives Analysis (SDAA) submitted with the electronic Notice of Intent (eNOI-KYG11). Form SDAA can be located in the Department's Form Library found at <a href="http://dep.ky.gov/formslibrary/Pages/default.aspx">http://dep.ky.gov/formslibrary/Pages/default.aspx</a>.

#### 5.3. BMP Plan

In accordance with 401 KAR 5:065, Section 2(4) [40 CFR 122.44(k)], permits are to include BMPs to control or abate the discharge of pollutants when: 1) authorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) authorized under Section 402(p) of the CWA for the control of stormwater discharges; 3) numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. Therefore the permittee is required to prepare and implement a BMP plan to identify measures it will take to prevent discharge of pollutants.

#### 5.4. Authorization to Discharge

The permittee is authorized to discharge under the terms of the permit upon receipt of written notification by DOW and upon the issuance of a fully effective permanent program permit by the Department of Natural Resources (DNR).

#### 5.5. Commingling of Wastestreams

Where wastestreams from any facility covered by this permit are combined for treatment or discharge with wastestreams from another facility, the concentration of each pollutant in the combined discharge may not exceed the most stringent limitations for that pollutant applicable to any component wastestream of the discharge. This requirement is consistent with the requirements of 401 KAR 5:065, Section 2(4) [40 CFR 434.61].

#### **5.6.** Notice of Intent

The new electronic NOI-KYG11 (eNOI-KYG11) will provide the necessary information to enable DOW to better determine the eligibility of and the applicable requirements for a facility seeking coverage under this general permit. Should DOW receive an eNOI-KYG11 that upon review DOW determines a potential for degradation or permanent lowering of water quality could result, DOW will request additional information. DOW will base its eligibility determination on a number of factors including but not limited to the amount of disturbance within the watershed, the proximity to drinking water sources or waters not categorized as "High Quality", size and duration of the project, etc. If, based upon review of the additional information DOW determines that additional controls and requirements beyond those in the KYG11 general permit are needed to meet antidegradation requirements, the applicant shall be required to obtain an individual permit.

Facilities which have applied for an individual KPDES stormwater discharge permit (IP) between October 1, 2007 and the effective date of this permit may be eligible for coverage under this permit, assuming they are not excluded under Section 1.2. If a facility has received an IP in this interim period, the Operator should submit the eNOI-KYG11 and indicate that a general permit was not available when operations began. If a

facility has applied for an IP but DOW has not yet issued the IP, the Operator should submit an eNOI-KYG11.

#### 5.7. Outfall Signage

The KPDES permit establishes monitoring points, effluent limitations, and other conditions to address discharges from the permitted facility. As a member of the Ohio River Valley Water Sanitation Commission (ORSANCO), DOW is obligated to include language in KPDES permits authorizing discharges to the Ohio River that notifies the permittee of the permanent marker requirements of Part V, Section A 3 of ORSANCO's Pollution Control Standards.

For all other receiving waters, DOW recommends the permittee place and maintain a permanent marker at each of the monitoring locations to better document and clarify these locations.

# **SECTION 6**

### **OTHER INFORMATION**

#### 6. OTHER INFORMATION

#### **6.1.** Permit Duration

The permit shall have a duration of five (5) years from the effective date unless modified or reissued. This permit includes facilities in all five (5) Basin Management Units of the Kentucky Watershed Management Framework.

#### **6.2.** Permit and Public Notice Information

The application, draft permit, fact sheet and public notice are available on the DOW Public Notice web page and the Department of Environmental Protection's Pending Approvals Search web page at:

http://water.ky.gov/Pages/PublicNotices.aspx:

http://dep.gateway.ky.gov/eSearch/Search\_Pending\_Approvals.aspx?Program=Wastewater&NumDaysDoc=30

Comments may be filed electronically at the following e-mail address: <a href="mailto:DOWPublicNotice@ky.gov">DOWPublicNotice@ky.gov</a>

#### **6.3.** References and Cited Documents

All material and documents referenced or cited in this fact sheet are parts of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the Division of Water's Open Records Coordinator at (502) 564-3410, or by e-mail <u>DEP.KORA@ky.gov</u>.